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**REMARKS**

**OCT 11 2006**

The above Amendments and these Remarks are submitted under 35 U.S.C. § 132 and 37 C.F.R. § 1.111 in response to the final Office Action mailed April 13, 2006.

**Examiner's Action and Applicant's Response**

The Examiner has rejected Claims 1, 2, 4-6, and 8 under 35 U.S.C. § 102(e) as being anticipated by Rodriguez, et al., U.S. Patent Application Publication No. 200510071882. Claims 3 and 7 have been rejected under 35 U.S.C. 103(a) as being obvious based on Rodriguez, et al. in view of Aras, et al., U. S. Patent No. 5,872,588. Applicant respectfully traverses the rejections. Claims 1-8 remain pending.

**Response to the Rejection of Claims 1-2, 4-6 and 8 under 35 U.S.C. § 102(e)**

The Examiner has rejected Claims 1, 2, 4-6, and 8 under 35 U.S.C. § 102(e) as being anticipated by Rodriguez, et al. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. 2131 citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." M.P.E.P. 2131 citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Regarding Claim 1, the Examiner stated that Rodriguez, et al. discloses "a method of managing television network bandwidth comprising: broadcasting a plurality of programs on a plurality of channels to a plurality of receivers (DHCT 14) across said network; [0035] identifying each channel of said plurality of channels to which at least one receiver of said plurality of receivers connected to said network is tuned; -(The network manager controls the distribution of media and data from the headend to each DHCT. Hence, the channel to which the receiver is tuned to is identified by the network manager. -[0051]) determining if at least one channel of said plurality of channels is not tuned by any one of said plurality of receivers; -(The bandwidth allocation manager determines if any of the channels are not tuned to by subscribers. -[0060]) if at least one channel of said plurality of channels is not tuned by any one of said plurality of receivers, halting transmission of a program on said at least one channel and broadcasting information other than a program on said

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at least one channel. -(When the bandwidth allocation manager determines that a channel is not tuned to by any subscribers, it halts transmission of broadcast data and media on that particular channel and uses the channel to set up a VoD session. Subsequently, if a subscriber selects the broadcast for that particular channel, the bandwidth allocation manager "recaptures" the bandwidth and allocates it to fulfill the subscriber request. -[0060])".

The method of Claim 1 for managing television network bandwidth includes the step of identifying each channel of said plurality of channels that is tuned by at least one receiver of said plurality of receivers connected to said network. The Examiner states that Rodriguez, et al. discloses a network manager that controls distribution of media and data from the headend to each digital home communication terminal (DHCT) and hence, the channel to which the receiver is tuned is identified by the network manager. Applicant respectfully disagrees. Applicant respectfully submits that Rodriguez, et al. discloses that a network manager 121 is part of a headend 26 and is not part of a subscriber's home communication terminal (DHCT). (See FIG. 4). Rodriguez, et al. states that "[t]he network manager 121 provides control and communication functionality by monitoring the DHCTs 14 and facilitating messaging between the DHCTs 14 and components within the headend 26." (Paragraph [0051]). (Emphasis added). Applicant respectfully submits that Rodriguez, et al. does not teach or suggest that the "monitoring" and "facilitating messaging" includes identifying each channel of a plurality of channels to which at least one receiver of a plurality of receivers is tuned, as claimed in Claim 1. Applicant respectfully submits that Rodriguez, et al. describes messaging and monitoring in the context of a subscriber request for video on demand (VOD) and pay per view delivery, e.g., of movies, not with respect to identifying channels to which a receiver is tuned. Regarding the use of "random access" features, such as "pause" or "play" for video on demand, Rodriguez, et al. states that "[t]hroughout the course of time that a VOD service is active further messaging is conducted between the respective DHCT 14 receiving the VOD service and the VOD application server 115 to monitor the status of the session. Thus, the VOD server can monitor that a session is properly functioning and determine whether the subscriber has invokes any random access feature of the VOD service." (Paragraphs [0046] and [0059]). (Emphasis added).

Applicant respectfully submits that Rodriguez, et al. also discloses a "bandwidth allocation manager 125 determines a bandwidth allocation schedule (and thus allocates the available bandwidth) based on allocation criteria comprising a subscriber reservation request. The subscriber

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reservation request is a request initiated by the subscriber to view a particular service at a particular time in the future.” (Paragraph [0061]). Rodriguez, et al. describes monitoring and messaging regarding this reservation request by stating that “...after selecting the date and time of the reservation request, the subscriber enters input via an input device, such as infrared remote control device, that instigates the **DHCT 14 to transmit a message to the network manager 121** requesting that the network manager 121 **reserve the necessary resources** to transmit the video content at the requested time.” (Paragraph [0062]). (Emphasis added). Applicant respectfully submits that monitoring whether a subscriber has invoked a random access feature of a video on demand service or made a request to reserve a video on demand at some time in the future does not teach or suggest identifying each channel to which a receiver is tuned, as claimed in Claim 1.

Further, Rodriguez, et al. discloses that the bandwidth allocation manager 125 “...dynamically allocates available bandwidth between Digital Transmission Channels (DTCs) based on allocation criteria which comprises at least one subscriber criteria received from a subscriber.” (Paragraph [0048]. Rodriguez, et al. describes criteria including subscriber criteria such as preferences for movie start times, movie titles, the degree of random access functionality, etc. (See Paragraphs [0056] -[0058]. Applicant respectfully submits that all the criteria disclosed in Rodriguez, et al. is not channel oriented, but rather oriented toward video on demand (VOD), pay per view movie selection and the like. Applicant respectfully submits that Rodriguez, et al. does not teach or suggest a method of managing television network bandwidth that includes identifying each channel to which a receiver is tuned, as claimed in Claim 1.

Claim 1 also includes the step of “determining if at least one channel of said plurality of channels is not tuned by any one of said plurality of receivers”. The Examiner stated that Rodriguez, et al. discloses that the bandwidth allocation manager determines if any of the channels are not tuned to by subscribers and identifies paragraph [0060]. Applicant respectfully disagrees. Rodriguez, et al. states in paragraph [0060] that “[h]ence, if no or a small number of subscribers have requested a particular movie that is planned to be transmitted according to a pay-per-view model, then the bandwidth allocation manager can ‘recapture’ that bandwidth and allocate it to fulfill a subscriber request during the same time period if it is to result in a more financially advantageous bandwidth allocation.” Applicant respectfully submits that, here again, the teaching in Rodriguez, et al. is regarding which “movie” that no subscribers have requested, and does not teach which channel is not tuned by any one of a plurality of subscriber’s receivers. That is,

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Applicant respectfully submits that a subscriber request for a particular movie does not disclose a subscriber request for a particular channel. Therefore, the determination as to whether no subscribers have requested a particular movie, as taught in Rodriguez, et al. does not teach determining if at least one channel is not tuned by any one of a plurality of receivers, as claimed in Claim 1. Applicant respectfully submits therefore that Rodriguez, et al. does not teach or suggest identifying each channel to which a receiver is tuned, as claimed in Claim 1.

The method in Claim 1 includes the step of halting transmission of a program on at least one channel and broadcasting information other than a program on the at least one channel if the at least one channel is not tuned by any one of receivers. The Examiner states that “[w]hen the bandwidth allocation manager determines that a channel is not tuned to by any subscribers, it halts transmission of broadcast data and media on that particular channel and uses the channel to set up a VoD session. Subsequently, if a subscriber selects the broadcast for that particular channel, the bandwidth allocation manager ‘recaptures’ the bandwidth and allocates it to fulfill the subscriber request. -[0060]”. Applicant respectfully disagrees. As described above, Rodriguez, et al. does not teach determining if at least one channel is not tuned by any of the receivers. Applicant respectfully submits that regarding VOD sessions, Rodriguez, et al. states that “...the bandwidth allocation manager can dynamically adjust bandwidth allocation in response to a subscriber criteria. This allows the bandwidth allocation manager 125 to either set up a VOD session according to several well-known methods such as that described above, or to choose an alternative delivery method to broadcast the requested VOD service without necessitating a VOD session.” (Paragraph [0060]. (Emphasis added). Regarding VOD sessions for a digital broadband delivery system (DBDS), Rodriguez, et al. teaches that “[i]n a typical DBDS, for each VOD request it is necessary to set up a ‘session’ between the DHCT 14 and the video server 113. A session is a logical entity used to define a connection between the DHCT 14 and the video server 113 and the resources used to maintain that connection in the DBDS. The signaling required to implement the session is defined by the MPEG-2 standard's ISO/IEC 13818-6 IS (MPEG-2 DSM-CC).” Applicant respectfully submits that this teaching of Rodriguez, et al. regarding setting up video on demand with or without necessitating a session does not teach or suggest halting transmission of a program on a channel if that channel is not tuned by any one of the receivers and broadcasting information other than program information on that channel, as claimed in Claim 1.

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For all of the above reasons, Applicant respectfully submits that Claim 1 is not anticipated by Rodriguez, et al. Claims 2-4 depend directly or indirectly from Claim 1 and are respectfully submitted as not being anticipated for the same reasons as given above for Claim 1.

Further regarding Claim 2, this claim adds the step of receiving a signal from each receiver indicating the channel tuned to the step of identifying in Claim 1. The Examiner states that Rodriguez, et al. discloses this step in that the network manager in Rodriguez, et al. provides control and communication functionality by monitoring the channels selected by the DHCT and communicated the selected channel to the headend. Applicant respectfully disagrees. Applicant respectfully submits that Rodriguez, et al. states that "[t]he network manager 121 provides control and communication functionality by monitoring the DHCTs 14 and facilitating messaging between the DHCTs 14 and components within the headend 26." (Paragraph [0051]). Applicant respectfully submits that Rodriguez, et al. does not teach or suggest that the "monitoring" and "facilitating messaging" includes receiving a signal from each receiver indicating the channel tuned. Further, the present specification describes a software program that may be employed by a receiver to transmit channel information to a head-end system or node of a network. (See FIG. 9 and page 10, lines 4-27). The present specification describes that according to an embodiment of the present invention the receiver may be programmed to issue an upstream message to the head-end system when it is first turned on, when it is being turned off, or when it is determined that the viewer has selected a new channel to be viewed. (Page 7, line 8-11, and see page 10, lines 25-28). In addition, according to an embodiment the present invention, "[e]ach receiver in the cable as system network communicates the channel tuned when the receiver is turned on (CHON), or the previous channel viewed (CH-OLD) and the new channel (CH-NEW) selected when channels are changed, and the channel tuned when a user selects the 'off' button on a remote (CH-OFF), to the head-end system." (Page 7, lines 14-18). Applicant respectfully submits that there is not teaching in Rodriguez, et al. of the receiver being configure, programmed, etc. to send a signal indicating the channel tuned, such that the signal can be received from the receiver. Applicant respectfully submits that Claim 2 is not anticipated by Rodriguez, et al. for this additional reason.

Further regarding Claim 4, this claim adds, to the step of identifying in Claim 1, the step of receiving a signal from each receiver of the plurality of receivers that indicates the channel tuned if a user has selected a receiver function discontinuing reception of any channel. For example, as described above, the present specification teaches communicating the previous channel viewed

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(CH-OLD) and the new channel (CH-NEW) selected when channels are changed. (See e.g., page 7, lines 14-18). In contrast, Rodriguez, et al. merely teaches a network manager that monitors the DHCTs and facilitating messages between them and components within the headend 26. (Paragraph [0051]). Applicant respectfully submits that such monitoring and facilitating taught in Rodriguez, et al. does not teach receiving a signal from each receiver of the plurality of receivers that indicates the channel tuned if a user has selected a receiver function discontinuing reception of any channel, as claimed in Claim 4. Applicant respectfully submits that Claim 4 is not anticipated by Rodriguez, et al. for this additional reason.

Applicant respectfully submits that Claim 5 is similar to Claim 1 and is not anticipated for the same reasons as given above for Claim 1. Claims 6-8 depend directly or indirectly from Claim 5 and are respectfully submitted as not being anticipated for the same reasons as given above for Claim 5.

Further regarding Claim 8, this claim adds, to the step of identifying in Claim 5, the step of receiving a signal from the receiver of the plurality of receivers, the signal indicating the channel tuned if a user has selected a receiver function discontinuing reception of any channel. According to one example, the present specification teaches communicating the new channel selected when channels are changed. (See e.g., page 7, lines 14-18). The Examiner stated that Rodriguez, et al. discloses this step in paragraph [0059] in that "[w]hen the user discontinues watching TV, a signal is sent to the headend/server indicating that a session has expired and to stop distributing content of the particular channel the user was tuned to." Applicant respectfully disagrees. Applicant respectfully submits that Rodriguez, et al. describes in paragraph [0059] fulfilling a video on demand request, in particular a VOD session, and does not teach in that paragraph or elsewhere the step of receiving a signal from a receiver indicating the channel tuned if a user has selected a receiver function discontinuing reception of any channel, as claimed in Claim 8. Applicant respectfully submits that Claim 8 is not anticipated by Rodriguez, et al. for this additional reason.

**Response to the Rejection of Claims 3 and 7 under 35 U.S.C. § 103(a)**

The Examiner rejected Claims 3 and 7 under 35 U.S.C. 103(a) as being obvious based on Rodriguez, et al. in view of Aras, et al. The Examiner stated that "Rodriguez, et al. fails to disclose wherein said step of identifying further comprises: receiving a signal from each receiver of said plurality of receivers, said signal indicating the channel tuned and the previous channel tuned." The

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Examiner stated that "... Aras, et al. discloses that the receivers transmit the Behavior Collection Table which indicates the channels tuned to by the user (channel tuned and previous channel tuned) to the Behavior Collection Center -col. 12, lines 40-45, col. 13, lines 24-28." The Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Rodriguez, et al.'s invention to include that the receivers transmit the Behavior Collection Table which indicates the channels tuned to by the user to the Behavior Collection Center, as taught by Aras, et al., for the advantage of statistical analysis. Applicant respectfully disagrees.

Claims 3 depends from Claim 1 and thus is respectfully submitted as being non-obvious based on Rodriguez, et al. for the same reasons as given above for Claim 1. Claim 7 depends from Claim 5 and thus is respectfully submitted as being non-obvious based on Rodriguez, et al. for the same reasons as given above for Claim 5. Applicant respectfully submits that Aras, et al. does not teach or suggest a method of managing television network bandwidth as claimed in Claims 3 and 7.

Further, Aras, et al. discloses encoding audio-visual material (AVM) with a unique Audio-Visual Identifier (AVI) in order to identify its content. (Col. 7, lines 30-33). Aras, et al. further discloses that "[t]he behavior collection and reporting mechanisms operate to capture subscriber behavior by collecting (i.e., storing and/or transmitting) the AVI information associated with the audio-visual material presented at each subscriber's home station and reporting this information to one or more behavior collection centers." (Col. 12, lines 40-45 which was cited by the Examiner). Aras, et al. also states that "[t]he home station monitors the AVM or AVMs selected by the subscriber for presentation. The home station extracts the AVI information accompanying the AVM(s) selected by the subscriber." (Col., 13, lines 24-28 which was cited by the Examiner). Applicant respectfully submits that the teaching in Aras, et al. of content coding of audio-visual material with unique AVIs and of collecting the AVIs does not teach or suggest receiving a signal from each receiver indicating **the channel tuned and the previous channel tuned**, as claimed in Claims 3 and 7. Further, AVIs are taught in Aras, et al. as being "...provided at intervals in the audio-visual material." (Col. 7, lines 34-35). Applicant respectfully submits that AVIs do not teach or suggest the channel tuned or the previous channel tuned. Applicant respectfully submits therefore that Claims 3 and 7 are non-obvious based on Rodriguez, et al. in view of Aras, et al. for this additional reason.

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Conclusion

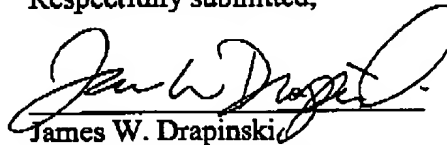
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For the above reasons, Applicant respectfully submits that all pending claims, Claims 1-8, in the present application are allowable. Such allowance is respectfully solicited

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (415) 984-8200.

Respectfully submitted,

10/11/2006  
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